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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,936	01/11/2002	Michael Mulligan	NOKM.015CIP	9432
7590 12/02/2008 Hollingsworth & Funk, LLC Suite 125 8009 34th Avenue South Minneapolis, MN 55425				
EXAMINER DOAN, DUYEN MY				
ART UNIT 2452		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/043,936

**Applicant(s)**

MULLIGAN ET AL.

**Examiner**

DUYEN DOAN

**Art Unit**

2452

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 October 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 8-41 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-6 and 8-41 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 11 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This office action is in response to the submission filed on 9/30/2008. Claims 1-6, 8-41 are amended for examination.

#### ***Response to Arguments***

Applicant's arguments filed 9/30/2008 have been fully considered but they are not persuasive.

In response to applicant's argument regard to the objection of the specification, that the specification provide the proper antecedent basis for the term "computer readable medium" in claim 41 and cited page 47 of the specification for the support, the argument against the objection to the specification is persuasive. However, in reviewing page 47 of the specification, base on applicant's assertion that the computer usable medium is the computer readable medium, examiner finds that this medium includes not only memory devices but also the transmitting devices such as radio wave (signal) communication. The claim is now rejected under 101 because base on MPEP 2106 signal or wave are not statutory (see the below rejection for more detail).

In response to applicant's argument that the loosely-coupled interface is not inherent, examiner disagrees, all devices communicate in the network require some kind of interfaces in order for them to talk to each other, the base stations in Vilander must have some kind of interface to communicate with the terminal 9 and the access server 8. The argument is not persuasive, therefore the rejection is maintained.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 41 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 41 is directed to a computer readable medium which is defined in Applicant's specification as "transmitting device such as carrier wave communication" [pg. 47, lines 5-23]. Signals or carrier waves do not fall within a statutory category of invention as they are neither a process, a machine, a manufacture or a composition of matter. The claim language must be amended to exclude the non-statutory subject matter from the claim.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6, 8-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Independent claims 1,18,30,33 recites, "service provision infrastructure...is configured to interface with a second type of network system" the disclosure as originally filed does not support the above limitation.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6, 8-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1,18,30,33 recites, "first type of network system...plurality of network systems...second type of network system..." it is unclear if the first type and the second type of network system are the same/not the same as plurality of network system, or the first type and the second type are the same or not. For the purpose of examination examiner interpret the first type, the second type, and plurality of network system are the same network systems.

### ***Claim Rejections - 35 USC § 102***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-2, 6, 8, 11, 18-22, 25, 27-39, 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Vilander et al (us pat 6,553,219) (hereinafter Vil).

As regarding claim 1, Vil discloses one or more terminals operable in a first type of network system (see Vil, figure 1, device 9) ; a network infrastructure comprising plurality of network systems (see Vil figure 1, base stations, RNC6, access server 8, gateway device 7) ; a service provision infrastructure for use by one or more of the terminal that host network enable applications and is configure to interface with a second type of network system(see Vil figure 1,and the corresponding text, access server 8 allows to access to internet, provide service for terminal 9); and at least one network service broker comprising a at least one terminal-coupled broker to communicate directly with one or more terminals (see Vil RNC 6, also see col.4, lines 9-23, base stations connect between terminal 9 and access server 8 allow terminal 9 to access services available at ISP) and loosely-coupled interface exposed to the service provision infrastructure for brokering added-value network services from one or more of the terminals and network systems to the service provision infrastructure (see Vil col. 4, lines 19-27, base stations and RNC connected to the access server 8 to access the internet services, the interface is inherently exist between the base station and the access server in order for the two to communicate).

As regarding claim 2, Vil discloses a loosely-coupled standardized interface (see Vil col. 4, lines 19-27, RNC connected to the access server 8 to access the internet services, the interface is inherently exist between the base stations/RNC and the access server in order for the two to communicate).

As regarding claim 6, Vil discloses wherein the network service broker comprises at least one network-coupled broker to communicate with one or more network elements in the network infrastructure (see Vil col.4, lines 9-21).

As regarding claim 8, Vil discloses the network service broker comprises at least one hybrid network service broker to communicate with one or more network elements in the network infrastructure and with one or more terminals (see Vil figure 1, base station and RNC communicates with terminal 9 and access server 8).

As regarding claim 11, Vil discloses location broker to access a terminal location service to allow a location of the terminal to be provided to the network enabled application (see Vil col.4, lines 56-65).

As regarding claim 18, the limitations of claim 18 are similar to limitations of rejected claim 1, therefore rejected for the same rationale.

As regarding claim 19, Vil discloses wherein facilitating access via the loosely-couples network service broker interface comprises making the service available to the applications via the loosely-coupled network service broker interface using any of a plurality of service provision infrastructure technology (see Vil co.4, lines 43-65).

As regarding claim 20, Vil discloses communicating between the network service broker and the network infrastructure regardless of technological differences in one or more different network elements operating within the network infrastructure (see Vil co.4, lines 43-65).

As regarding claim 21, Vil discloses communicating between the network service broker and the network infrastructure regardless of technological differences in one or more network infrastructure network systems having different access methods (see Vil col.2, lines 53-63).

As regarding claim 22, Vil discloses wherein the one or more network infrastructures collectively implement a plurality of different network technologies, and wherein the network service broker accommodates technological variations between the network technologies and service provision infrastructure technologies (see Vil col.2, lines 53-63).

As regarding claim 25, Vil discloses providing at least one network service broker comprises providing a plurality of network service brokers, and wherein each of the plurality of network service brokers comprises a loosely-coupled interface exposed to the service provision infrastructure for communication there between (see Vil col. 4, lines 19-27, RNC connected to the access server 8 to access the internet services, the interface is inherently exist between the base stations/RNC and the access server in order for the two to communicate).



As regarding claim 27, Vil discloses a fix network (see Vil figure 1, network 4).

As regarding claim 28, Vil discloses a wireless network (see Vil figure 1, network 1).

As regarding claim 29, Vil discloses utilizing value-added service by service by the applications as arranged by the network service broker (see col.4, lines 20-27).

As regarding claim 30, Vil discloses the limitations of claim 18 are similar to limitations of rejected claim 1, therefore rejected for the same rationale.

As regarding claims 31-32, Vil discloses the limitations of claim 31-32 are similar to limitations of rejected claims 19-22, therefore rejected for the same rationale.

As regarding claims 33-39, 41, the limitations of claims 33-39, 41 are similar to rejected claims 1-2, 6, 8, 18-22, therefore rejected for the same rationale.

Claims 9-10, 12-17, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilander et al (us pat 6,553,219) (hereinafter Vil) in view of Rosenberg et al (us 2003/0013434) (hereinafter Rosenberg).

As regarding claim 9, Vil discloses the invention substantially as claim in claim 1, but does not explicitly disclose wherein the network service broker is an authentication broker.

Vil teaches an authentication broker (see pg.2, par 0020-0024).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Rosenberg to the system of Vil to include an authentication broker, because by having an authentication broker would ensure data security and billing purposes for the system (see Rosenberg pg.2, par 0020-0024).

As regarding claim 10, Vil discloses the invention substantially as claim in claim 1, but does not explicitly disclose charging broker to access a charging/billing service in connection with use of the network-enabled application.

Rosenberg teaches a charging broker to access a charging/billing service in connection with use of the network-enabled application (see Rosenberg, pg. 2, par 0020-0024).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Rosenberg to the system of Vil to include the charging broker, because it would keep track of the user's usage and bill the user according (see Rosenberg pg.2, par 0020-0024).

As regarding claim 12, Vil discloses the invention substantially as claim in claim 1, but does not explicitly disclose content ordering broker to store subscription information to a profile register and to verify subscription intentions of an end-user of the terminal.

Rosenberg teaches content ordering broker to store subscription information to a profile register and to verify subscription intentions of an end-user of the terminal (see Rosenberg pg.2, par 0018-0024).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Rosenberg to the system of Vil to include the content ordering broker, because it would keep track of content of end user ordering and bill the user base on the ordered content (see Rosenberg pg.2, par 0018-0024).

As regarding claim 13, Vil-Rosenbergh discloses network service broker is a presence broker to access a presence service to allow user presence information to be provided to the network-enable application (see Rosenberg pg.2, par 0018-0024).

As regarding claim 14, Vil-Rosenbergh discloses the network service broker is a client provisioning broker to broker provisioning of mobile terminals (see Rosenberg pg.2, par 0018-0024).

As regarding claim 15, Vil-Rosenbergh discloses network service broker is a notification broker to facilitate pushing content to the terminals (see Rosenberg pg.2, par 0018-0024).

As regarding claim 16-17, Vil discloses the invention substantially as claim in claim 1, but does not explicitly disclose the network service broker is a privacy broker to access end-user privacy information and to control which information other brokers will provide to the service provision infrastructure.

Rosenberg teaches the network service broker is a privacy broker to access end-user privacy information and to control which information other brokers will provide to the service provision infrastructure (see Rosenberg pg.2, par 0020-0024; pg.4, par 0052 to 0057).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Rosenberg to the system of Vil to include the privacy broker because it would allow the allow the system to authenticate the user by accessing the end user privacy information such as username and password (see Rosenberg pg.2, par 0020-0024).

As regarding claim 26, Vil-Rosenbergh discloses at least some of the plurality of network service brokers intercommunicates (see Rosenberg pg.2, par 0020-0024).

Claims 3-5, 23-24, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilander et al (us pat 6,553,219) (hereinafter Vil) in view of Hagirahim et al (us 2002/0154642) (hereinafter Hag).

As regarding claim 3, Vil discloses the invention substantially as claim in claim 1, but does not explicitly disclose the interface is defined in XML.

Hag teaches interfaces are defined in XML (see Hag page.2-3, par 0018, XML).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Hag to the system of Vil to define interface in XML because of the flexibility of XML which allows the user to define their own element.

As regarding claim 4, Vil discloses the invention substantially as claim in claim 1, but does not explicitly disclose web service interface.

Hag teaches the web service interface (see Hag page.2-3, par 0018, 0031).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Hag to the system of Vil to include web service interface for the purpose of allowing the terminal to access to the web.

As regarding claim 5, Vil discloses the invention substantially as claim in claim 1, but does not explicitly disclose the interface is single loosely-coupled web service interface exposed to the service provision infrastructure.

Hag teaches the interface is single loosely-coupled web service interface exposed to the service provision infrastructure (see Hag page.2-3, par 0018, 0031).

It would have been o obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Hag to the system of Vil to include web service interface for the purpose of allowing the terminal to access to the web.

As regarding claims 23-24, the limitations of claims 23-24 are similar to limitations of rejected claims 4-5, therefore rejected for the same rationales.

As regarding claim 40, limitations of claim 40 are similar to limitation of claim 1 which rejected under Vil, however Vil does not disclose web services based interface having XML schema.

Hag teaches web interfaces are defined in XML (see Hag page.2-3, par 0018, XML).

It would have been o obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Hag to the system of Vil to define interface in XML because of the flexibility of XML which allows the user to define their own element.

### ***Conclusion***

**Examiner's Note:**Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to

specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DUYEN DOAN** whose telephone number is (571)272-4226. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571 272 3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. D./  
Examiner, Art Unit 2452

/Kenny S Lin/  
Primary Examiner, Art Unit 2452